R17

Code No: 844AB

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
MCA IV Semester Examinations, April/May - 2019
LINUX PROGRAMMING

Time: 3hrs **Max.Marks:75**

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART - A

5 × 5 Marks = 25

1.a) Write short notes on file name substitution and command substitution. [5]
b) Explain in detail about stat family. [5]
c) Write a program to illustrate zombie process. [5]
d) Explain briefly about the types of Inter Process Communication. [5]
e) Briefly discuss about the socket options. [5]

PART - B

5 × 10 Marks = 50

2.a) Write short notes on shell responsibilities.
b) Write a shell script to find the factorial of a given number. [5+5]

OR

3.a) Write short notes on interrupt processing in shell.
b) Write a shell script to list all the directories and files in the current directory. [5+5]

4.a) Write short notes on scalar in Perl and their operations.
b) Explain pattern matching with an example. [5+5]

OR

5.a) Explain the concept of kernel support for files.
b) Write a program to check and report file descriptors of all opened files. [5+5]

6.a) Explain in brief the kernel support for signals.
b) Write about alarm and pause functions with example. [5+5]

OR

7.a) What is meant by process termination? Explain the various types of process terminations with suitable example.
b) Write short notes on process attributes. [5+5]

8. Explain in detail about the process of reading and writing a message from and to a message queue. [10]

OR

9.a) Explain about inter process communication using pipes.
b) Explain popen() and pclose() functions with suitable examples. [5+5]

10.a) Explain about the semget( ), semop( ), and semctl( ) functions.
b) Explain about the kernel support for shared memory. [5+5]

OR

11. What are Linux Sockets? Write about connection oriented and connectionless protocols. [10]

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